



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,862	07/14/2003	Eric Balard	TI-34918	6968

23494 7590 01/19/2007
TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

REVAK, CHRISTOPHER A

ART UNIT	PAPER NUMBER
----------	--------------

2131

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/618,862	Applicant(s) BALARD ET AL.	
	Examiner Christopher A. Revak	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>see attached</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 119(e).
2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Information Disclosure Statement

9. The information disclosure statements submitted are in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Double Patenting

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

Art Unit: 2131

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1-24 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/618,859. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-24 of the instant application are envisioned by co-pending claims 1-21 in that claims 1-21 of the co-pending application contains all the limitations of claims 1-24 of the instant application. Claims 1-24 of the instant application therefore are not patentably distinct from the co-pending claims, and as such, are unpatentable for obvious-type double patenting.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1,11,23, and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Martinek et al, U.S. Patent 7,043,641.

As per claim 1, it is taught by Martinek et al of a computing device comprising a processing system, a memory coupled to the processing system, a system program stored in the memory, and a secure checking program for repeatedly authenticating the system program during operation of the computing device to ensure that the system program is not modified during execution (col. 4, lines 15-19; col. 5, lines 36-47; col. 8, lines 22-23; and col. 9, lines 10-24).

As per claim 11, Martinek et al teaches of a method of controlling the operation of a computing device comprising the steps of comparing a current state of a system program executed by the computing device with a known secure state of the system program and repeating the comparing step during operation of the computing device to determine if any variation of the system program form the known secure state (col. 5, lines 36-47 and col. 9, lines 10-24).

As per claim 23, Martinek et al teaches wherein the repeating step comprises the step of repeating the comparing step during periods of inactivity in the computing device (col. 9, lines 10-24).

As per claim 24, Martinek et al discloses wherein the repeating step comprises the step of repeating the comparing step when initiated by a software application (col. 9, lines 10-24).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 2-10 and 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinek et al, U.S. Patent 7,043,641 in view of Housley et al (FRC 2459).

As per claim 2, it is disclosed by Martinek et al of certifying the system program, wherein the information defining a secure state of the system program (col. 5, lines 6-16), however the teachings of Martinek et al fail to disclose of the use of digital certificates. It is taught by Housley et al of the use of digital certificates used for validating information contained within it (page 8, section 3.1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have been motivated to apply the use of digital certificates to certify certain content. Motivation is used by Housley et al in that it is suggested that authentication and authorization information is provided in order to certify the content associated with it (page 6, section 2.2). The teachings of Martinek et al are suggestive to the use of certificates since it is disclosed that content is certified and the teachings of Housley et al provide further support for the use of digital certificates to certify the content associated with it.

As per claim 3, Martinek et al teaches wherein the information includes a hash of the system program (col. 9, lines 10-24).

As per claim 4, Martinek et al discloses wherein the hash is asymmetrically encrypted using a private key to produce a signature associated with the system program (col. 5, lines 48-56 and col. 6, lines 38-63).

As per claim 5, it is taught by Martinek et al wherein the information includes a public key associated with the private key (col. 6, lines 38-63).

As per claims 6, 19, and 20, it is disclosed by Martinek et al wherein the secure checking program authenticates the system/firmware program by decrypting the signature using the public key to produce a decrypted signature and comparing a hash of the current state of the system/firmware program with the decrypted signature (col. 5, lines 48-56; col. 6, lines 38-63; and col. 9, lines 10-24).

As per claim 7, Martinek et al teaches wherein the information is asymmetrically encrypted using a private key belonging to a manufacturer of the computing device (col. 6, lines 38-63).

As per claim 8, Martinek et al discloses wherein the information includes a die identification number uniquely associated with the computing device (col. 5, lines 36-47).

As per claims 9 and 21, it is taught by Martinek et al wherein the secure checking program compares the die identification number stored with a die identification number stored in the computing device (col. 5, lines 36-47). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al.

As per claims 10 and 22, it is disclosed by Martinek et al wherein the secure checking program can disable functions of the computing device if a modification of the system program is detected (col. 9, lines 10-24).

As per claim 12, Martinek et al discloses wherein the comparing step comprises the step of comparing information associated with the system program to the current state to determine if a modification of the system program has occurred (col. 9, lines 10-24). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al.

As per claim 13, it is taught by Martinek et al wherein the comparing step further comprises the step of authenticating a firmware, wherein the firmware contains an encrypted hash (col. 6, lines 38-63 and col. 9, lines 10-24). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al. Housley et al further discloses of certificate fields which comprises specific information associated with the subject (page 14, section 4.1).

As per claim 14, it is disclosed by Martinek et al wherein the authenticating step comprises the step of asymmetrically decrypting the hash using a public key to produce a signature (col. 5, lines 48-56; col. 6, lines 38-63; and col. 9, lines 10-24). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al.

As per claim 15, Housley et al teaches wherein the public key is stored in the digital certificate (page 14, section 4.1). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al.

As per claim 16, Martinek et al discloses wherein the authenticating step comprises the step of comparing a hash of a current state of the system program with the signature (col. 9, lines 10-24).

As per claim 17, it is taught by Martinek et al wherein the comparing step comprises the step of authenticating an originator's public key, where the originator's public key is associated with a firmware originator (col. 6, lines 38-63). The teachings of Housley et al are relied upon for the use of digital certificates, please refer above for the motivation of applying the teachings of Housley et al to the disclosure of Martinek et al.

As per claim 18, it is disclosed by Martinek et al wherein the authenticating step comprises the step of decrypting the signature associate with originator's public key with reference to a manufacturer's public key, where the manufacturer's public key is associated with a manufacturer of the computing device, to produce a decrypted signature, generating a hash of the originator's public key, and comparing the decrypted signature with the hash (col. 5, lines 48-56; col. 6, lines 38-63; and col. 9, lines 10-24).

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 571-272-3794. The examiner can normally be reached on Monday-Friday, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR

January 7, 2007

CHRISTOPHER REVAK
PRIMARY EXAMINER

